Application No.: 10/520,457

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## AMENDMENTS TO THE CLAIMS

1. **(Previously presented)** A method for the preparation of virus-inactivated thrombin comprising the steps of:

- (a) solvent-detergent virus inactivating of a solution comprising prothrombin and factor X;
  - (b) loading the product of step (a) onto an anion exchange medium;
- (c) washing the anion exchange medium to remove reagents used for the solventdetergent virus inactivating in step (a); and
- (d) activating the prothrombin on the anion exchange medium to form thrombin by addition of metal ions.
- 2. (Previously presented) The method according to claim 1, wherein the solution comprising prothrombin and factor X is a prothrombin complex.
- 3. (Previously presented) A method for the preparation of virus-inactivated thrombin comprising the steps of:
  - (a) solvent-detergent virus inactivating of a solution comprising factor X;
  - (b) loading the product of step (a) onto an anion exchange medium;
  - (c) washing the anion exchange medium to remove reagents used for the solventdetergent virus inactivating in step (a);
  - (d) activating the factor X on the anion exchange medium to form factor Xa by addition of metal ions; and
  - (e) loading virus-inactivated prothrombin onto the anion exchange medium such that thrombin is generated.
- 4. **(Previously presented)** The method according to claim 1 or 3 wherein the metal ions are divalent metal ions.
- 5. (Previously presented) The method according to claim 4 wherein the divalent metal ions are magnesium and/or calcium ions.
- 6. (Previously presented) The method according to claim 1, further comprising the step of
  - (e) selectively eluting the thrombin from the anion exchange medium.
- 7. (Previously presented) The method according to claim 6, further comprising the steps of

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- (f) passing the product of step (e) through a filter which retains pathogens;
- (g) adding a divalent metal ion and a carbohydrate to the product of step (f), and
- (h) freeze-drying and heat-treating the product of step (g) to inactivate viruses.

## 8-13. (Canceled)

- 14. (Previously presented) The method according to claim 3, further comprising the step of
  - (f) selectively eluting the thrombin from the anion exchange medium.
- 15. (Previously presented) The method according to claim 14, further comprising the steps of
  - (g) passing the product of step (f) through a filter which retains pathogens;
  - (h) adding a divalent metal ion and a carbohydrate to the product of step (g), and
  - (i) freeze-drying and heat-treating the product of step (h) to inactivate viruses.
- 16. (New) A method for the preparation of virus-inactivated thrombin comprising the steps of:
  - (a) loading a solution comprising prothrombin and factor X onto an anion exchange medium; and
  - (b) solvent-detergent virus inactivating of the prothrombin and factor X on the anion exchange medium.
  - (c) washing the anion exchange medium to remove reagents used for the solventdetergent virus inactivating in step (a); and
  - (d) activating the prothrombin on the anion exchange medium to form thrombin by addition of metal ions.
- 17. (New) The method according to claim 16 wherein the metal ions are divalent metal ions.
- 18. (New) The method according to claim 17 wherein the divalent metal ions are magnesium and/or calcium ions.
  - 19. (New) The method according to claim 16, further comprising the step of
    - (e) selectively eluting the thrombin from the anion exchange medium.
  - 20. (New) The method according to claim 19, further comprising the steps of
    - (f) passing the product of step (e) through a filter which retains pathogens;
    - (g) adding a divalent metal ion and a carbohydrate to the product of step (f), and

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(h) freeze-drying and heat-treating the product of step (g) to inactivate viruses.

- 21. (New) A method for the preparation of virus-inactivated thrombin comprising the steps of:
  - (a) loading a solution comprising prothrombin and factor X onto an anion exchange medium; and
  - (b) solvent-detergent virus inactivating of the prothrombin and factor X on the anion exchange medium.
  - (c) washing the anion exchange medium to remove reagents used for the solventdetergent virus inactivating in step (a);
  - (d) activating the factor X on the anion exchange medium to form factor Xa by addition of metal ions; and
  - (e) loading virus-inactivated prothrombin onto the anion exchange medium such that thrombin is generated.
- 22. (New) The method according to claim 21 wherein the metal ions are divalent metal ions.
- 23. (New) The method according to claim 22 wherein the divalent metal ions are magnesium and/or calcium ions.
  - 24. (New) The method according to claim 21, further comprising the step of
    - (e) selectively eluting the thrombin from the anion exchange medium.
  - 25. (New) The method according to claim 24, further comprising the steps of
    - (f) passing the product of step (e) through a filter which retains pathogens:
    - (g) adding a divalent metal ion and a carbohydrate to the product of step (f), and
    - (h) freeze-drying and heat-treating the product of step (g) to inactivate viruses.
- 26. (New) The method according to Claim 1, wherein step (d) is performed without addition of phospholipds.
- 27. (New) The method according to Claim 3, wherein step (d) is performed without addition of phospholipds.
- 28. (New) The method according to Claim 16, wherein step (d) is performed without addition of phospholipds.
- 29. (New) The method according to Claim 21, wherein step (d) is performed without addition of phospholipds.